BATTLELINE 2

COMRADE EMCHA

RED ARMY SHERMANS OF WW2

CLAUDE GILLONO WITH LEIFE HULBERT

FIREFLY COLLECTION

©THE OLIVER PUBLISHING GROUP

MORE THAN 50 ARCHIVE PHOTOGRAPHS
5 PAGES OF FULL COLOUR ARTWORK
TEXT MAPS AND DIAGRAMS

PRINTED IN AUSTRALIA
RECOMMENDED RETAIL $27.95 +GST(AUS)

BATTLELINE 2

COMRADE EMCHA

RED ARMY SHERMANS OF WW2

CLAUDE GILLONO WITH LEIFE HULBERT
ILLUSTRATIONS BY DENNIS OLIVER

ISBN 978-0-9806593-7-5

Acknowledgments
The author and publisher would like to thank Professor Yury Shepelev, the staff of the National Archives and Record Administration, College Park, Maryland and the National Library of Australia, Canberra and Stefan De Meyer at the Archive of Modern Conflict (http://ground.warfarethroughthelens.org/). We would also like to thank all those who contribute to the Dupuy Institute Forum, Armchair General and the RKKA in WW2 website. In addition to the online sources mentioned, the following printed works were also consulted: **Commanding The Red Army's Sherman Tanks.** Loza, D. **Sherman. A History Of The American Medium Tank.** Hunnicutt, R.P. **Red Hammer. Soviet Self-propelled Artillery and Lend-Lease Armor 1941-1945.** Sharp, C. **Soviet Order of Battle WW2 Volume XII.** Sharp, C. **The M4 Sherman At War.** Zaloga, S. J. **M4 Sherman.** Gawrych, Wojciech J. **Companion To The Red Army.** Zaloga, S and Ness, L.S. **Order Of Battle Of The Red Army In WWII.** Porter, D. **Red Army Uniforms of World War 2 In Colour.** Shalito, A. Savchenko, I and Mollo, A. **Stalingrad To Berlin.** Ziemke, E.F. **Ostfront 1944.** Buchner, A. **Berlin 1945.** Szejn, D. **Die Kämpfe In Ostpreussen, Schlesien Und Pommern.** Haupt, W. **The Battle For Budapest.** Ungváry, K. **Battleground Prussia.** Buttar, P. **Berlin, The Final Reckoning.** Bahm, K. **Panzerschlacht.** Moore, P. **Breslau 1945.** Solarz, J. **Budapest Balaton 1945.** Swirin, M. Baronow, O. Kolometz, M. Niedogonow, D. **Warszawa 1944. Battle On Two Fronts 1944-45.** Cockle, T. **Konigsberg 1945.** Szilowski, J. **Czechy 1945.** Jakl, T.

Publisher's Note
The illustrations in this book were all created using contemporary photographs as a reference and we have attempted to create as faithful a reproduction as possible - including the shape and position of any camouflage pattern, markings and the style of lettering used. In the few cases where we have been forced to speculate we have tried to make this clear. Where possible, we have reproduced the photograph or photographs so used, however copyright and budgetary restrictions and do not always allow this.

Submissions
Authors who wish to submit material should contact the editor at the address shown below.

Copyright © 2011 The Oliver Publishing Group
PO Box 42, Keiraville. NSW 2500
Australia

All rights reserved. Apart from fair dealing for the purpose of private study, research, criticism or review as permitted under the Copyright, Design and Patent Act, 1988, no part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, electrical, chemical, mechanical, optical photocopying, recording or otherwise, without prior written permission of The Oliver Publishing Group. All enquiries should be addressed to the publisher.

Printed in Australia by
Printmedia
32 Swan Street, Wollongong. NSW 2500

Front cover: M4A2. 6th Guards Tank Brigade, Poland, summer 1944. *The colourful markings adopted by this unit are also shown and discussed on page 15.*

Top left: A late model, large hatch M4A2 of 2nd Ukrainian Front photographed in 1944. Of note is the addition of a handrail welded to the hull just above the hull appliqué armour to help the accompanying infantry to hold onto the tank, not an easy task on rough terrain or when the tank was covered with troops. Top right: All five members of the crew of this late production, 75mm armed M4A2 are visible and as they enjoy some respite during summer, 1944. Note the tactical insignia just visible on the turret side. Bottom left: Photographed in Poland during July 1944 while engaged in Operation Bagration, this late production 75mm armed Emcha from 114th Tank Regiment of 7th Guards Cavalry Corps is also depicted in the illustration section on page 16. This large scale offensive cleared the Wehrmacht from Western Russia and was the first truly successful Soviet Blitzkrieg. Bottom right: This 76mm Emcha of 2nd Guards Tank Army's 219th Tank Brigade took part in the fighting in Berlin in the last weeks of the war. Other examples of the markings used by the tanks of this unit are shown in the illustration section on the outside back cover. (J. Howard Parker)

The story of the Sherman tank in Soviet service during World War II has received little attention outside Russia - or as it was, the Soviet Union. Although from 1941 to 1945, the USSR and the United States were allies, the Cold War commenced almost immediately after the defeat of Germany and any help that the western Allies may have extended to the Russian war effort was regarded by Stalin as a political embarrassment - and indeed has continued to be so even until the present day, although on something of a reduced scale. In fairness to the Soviets however, the majority of the tanks supplied under the Lend-Lease agreement performed poorly against their German counterparts and the greatest assistance came in the form of the huge number of Jeeps, trucks and canned food, the latter often derisorily referred to as the Second Front by the Red Army's soldiers.

Although many official documents and photographs have been released since the break-up of the Soviet Union, many more are still denied to foreigners and all were of course recorded in Russian. The tendency to downplay the contribution of the Lend-Lease equipment means that very few images of the Soviet Shermans have ever been released. This has been alleviated in part by the reasonably large number of captured German photographs available. Unfortunately, these usually depict vehicles that are damaged to some degree and in most cases the captions have been lost. They are on the other hand, of a very high quality and we have used those that are available in this book.

One of the difficulties most often faced by Sherman researchers is attempting to determine which variant of the tank is being discussed or depicted in a particular photograph. However, except for two examples of the M4A4 model received for evaluation purposes, all the Sherman tanks delivered to the Soviet Union were the diesel engine M4A2 version, initially armed with the 75mm and later the long-barrelled 76mm gun. This model was chosen intentionally with the aim of placing the least possible strain on the Russian supply system as all their medium and heavy tanks were diesel powered.

Shipped from the United States via Siberia in the north or Iran in the south from November 1942 until the war's end in mid 1945, in all 4,102 M4A2 Sherman tanks were delivered. This figure comprised 2,007 75mm armed vehicles and 2,095 with the 76mm gun. Exact figures for losses en route are not known but in total 417 M3 and M4 Medium tanks were lost and it would seem likely that the majority of these were M3 Mediums as the sea routes were much safer by the time the Shermans were dispatched. Curiously, Russian contemporary sources list only 3,664 deliveries with 2,653 vehicles being supplied to front-line units (see note 1). The difference in these two figures was due to the high number of western tanks retained by training units. American built vehicles in particular were more reliable in addition to being mechanically more forgiving to inexperienced tank crews. These attributes enabled the Soviets to more easily and quickly train replacements and compensate for the extremely high loss rate among tank crews.

The first deliveries were the 75mm armed versions of the M4A2, including almost every possible configuration ranging from the early, so called Direct Vision (DV), model to the later dry stowage variants with the one-piece glacis and appliqué armour plates on the hull sides. The 76mm versions were first equipped with the Vertical Volute Spring Suspension (VVSS) but Horizontal Volute Spring Suspension (HVSS) variants arrived in time for the Manchurian Campaign of August 1945, if not earlier (see note 2).

The M4A2 was the second model of the M4 Medium tank to enter production and the first variant with a welded upper hull. It was powered by the General Motors 6046 twin, in-line 12 cylinder liquid cooled diesel engine developed for, and already in use with, the M3A3 and M3A5 Medium tank. In all 8,053 examples of the 75mm armed version of the M4A2 were produced from April 1942 to May 1944 with 7,413 of these being allocated to the Lend-Lease programme - the vast majority going to British and Commonwealth forces. In May 1944, the Sherman program switched to the 76mm gun with 2,915 of these tanks being built until production was halted in May 1945 (see note 3).

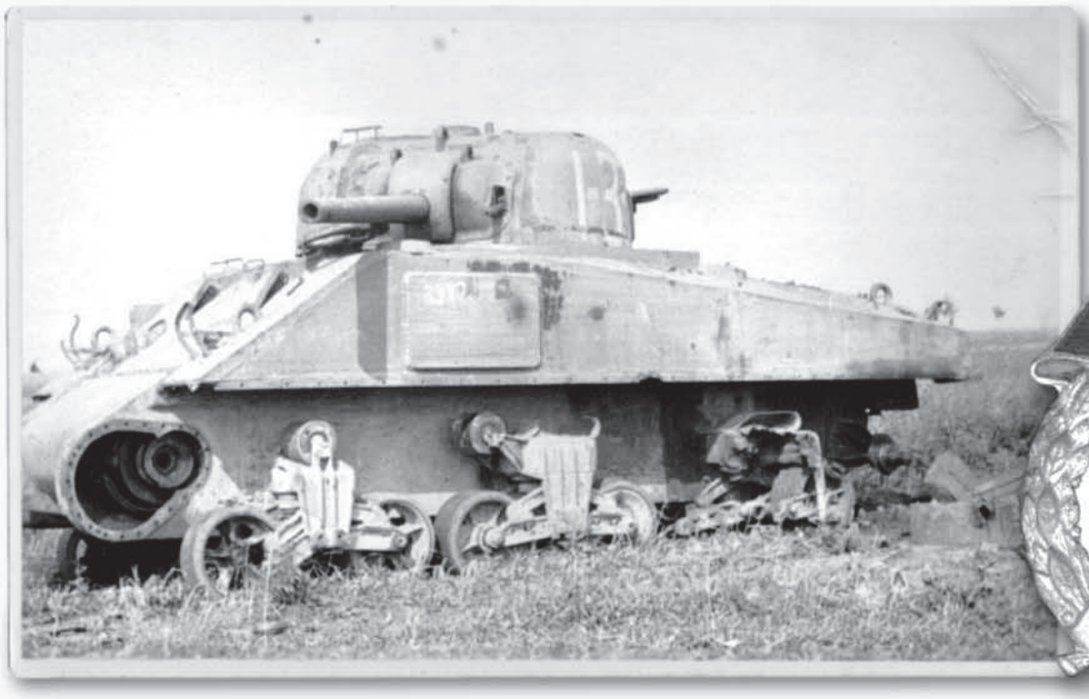
The Soviets referred to the tank - regardless of its armament - by its official US Army nomenclature of M4, or in Russian, M Chetyrye - shortened to Emcha. Their crews were referred to as Emchisti.

The Emchas enjoyed a much better reputation than the earlier Lend-Lease tanks such as the American M3 Medium or the British Matilda. They were liked by their crews who were grateful for the Sherman's relative comfort and general habitability and also appreciated by the higher echelons for their mechanical reliability. These qualities were somewhat lacking in the T-34 and contributed to the Emcha's efficiency during a campaign. This goes some way to explaining why an elite unit such as the 9th Guards Mechanized Corps had three of its brigades equipped with Shermans and not the locally developed T-34. As another example, the 1st Guards Mechanized Corps traded its powerful T-34/85s for M4A2s in late 1944 in preparation for the final offensive into the heart of Germany. Mounted in the commander's cupola, the .50 calibre M2 heavy machine gun was much appreciated in street fighting and for anti-aircraft defence. Although it was generally awkward for the crew to operate, the gun was easily dismounted to allow the accompanying infantry to use it. Mechanically, the twin diesel engine had plentiful torque and could be clutched separately, allowing a very quiet advance at low speed especially if the tank ran on rubber tracks which the T-34 could not do. The overall longer life of the Emcha's tracks was also an advantage, surviving roughly twice as long as Soviet tracks, with the rubber variants capable of giving up to 5,000 km service. This was however in favourable conditions and terrain and the Russians found that the metal tracks particularly suffered from loss of grip on snow and ice and that in extremely high temperatures - such as those encountered during the summer of 1944 while crossing Romania and in August 1945 in Manchuria - the Emcha's suspension was prone to overheating and damage, with the rubber block tracks and roadwheel tyres disintegrating.

.....continued on page 6

Photographed near Vienna in early March 1945, this M4A2 of 9th Guards Mechanised Corps has cast driver's hoods, a full complement of appliqué armour plates and a canvas cover over the bow machine-gun. The tactical marking on the turret is possibly 1-311. (J. Howard Parker)

EARLY EMCHAS

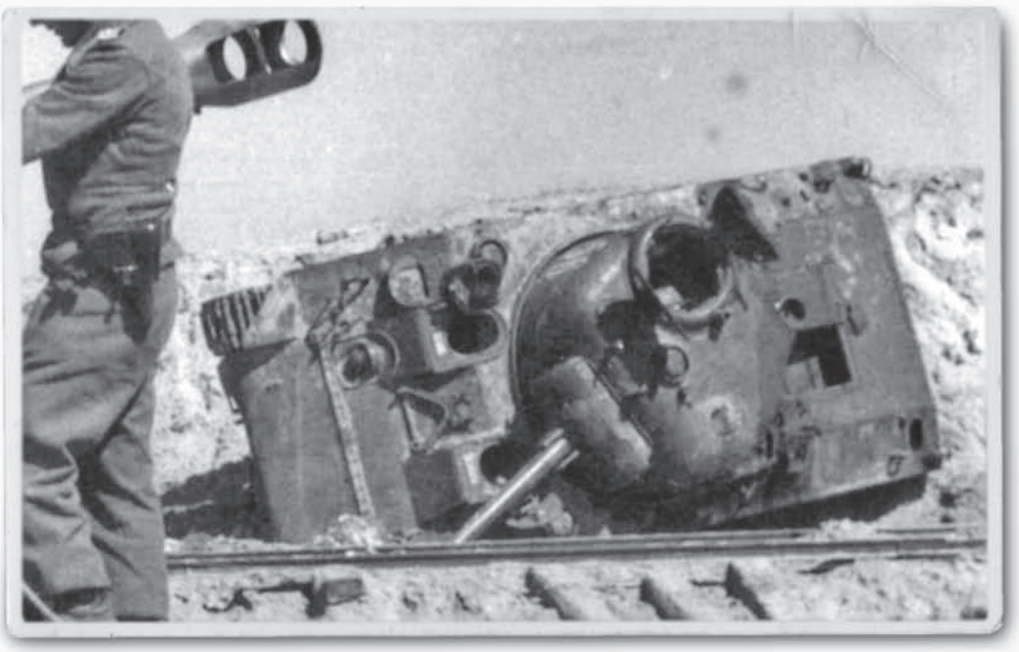


Below: The Guards badge as worn by members of units which had been - due to exemplary or distinguished service - awarded the Guards title. Introduced as early as September 1941, this was yet another tradition of the Imperial Army resurrected in an effort to boost morale.

The three vehicles depicted on this page are all early production model M4A2 Medium tanks with protruding driver's hoods, indicative of the so-called small hatch hull. The early hulls were manufactured from several plates and angled at 56 degrees. Later hulls were fabricated from a single piece of armour and angled at 47 degrees. The vehicle shown above not only has at least two different types of road wheel, but also the early type bogie towards the front of the hull and two of the later, heavy duty suspension bogies at the centre and the rear. Note that both of these have been attached backwards. Note also that this vehicle has additional armour plates positioned in front of the hull hatches. In addition to the turret number of 1-33, there is a notation just visible on the appliqué armour which begins 231 and perhaps O. (J. Howard Parker). At left is shown one of four Emchas disabled and photographed outside Kovel after the heavy fighting there in April 1944. Other photos of this tank show a large number 14 painted on the turret side. (Bundesarchiv)

The tank shown at left is believed to be from 2nd Tank Army and was photographed near Smolensk, knocked out and abandoned by the roadside. In the original print of this photograph the number 39 can be seen on the hull side - partly obscured here by what seems to be a chain - neatly applied to the appliqué armour, probably in white. Towards the rear of the hull, directly above the centre bogie can be seen a circle, probably also painted in white. Although unditching logs were a common sight on Russian tanks throughout the war, the arrangement of those seen here is quite unusual. Note that the turret of this tank does not have the pistol port normally positioned on the left side towards the rear. Both this vehicle and the tank shown in the photograph above have the T49 steel track. The Russians found that this type of track, although longer wearing than those of the T34, suffered from a lack of grip in snow and ice. (Bundesarchiv)

At right: This photograph of a disabled early production M4A2 gives a good view of the driver's hoods indicative of these vehicles. Both hatches are in the fully opened position and both hoods have additional armour plate as can be seen in the top photograph on the previous page. Also visible is the gun cradle in the folded position between the hoods. Note the large number on the turret side. At centre: An early model photographed in April 1944. The driver's hoods here are the cast variety lacking the very angular appearance of those shown above. Below right: The Medal for Victory over Japan. Both sides are shown, with the reverse lacking the colourful red, white and yellow ribbon. Although the campaign in the Far East was brief, the Soviet forces engaged were enormous and approximately 1.8 million soldiers were presented with this award. At bottom: A column of 75mm Emchas passing through a town in what is possibly Romania on 31 August 1944. (J. Howard Parker)



The series of photographs on this page and the next show 75mm armed Emchas of 2nd Tank Army's 64th Guards Tank Brigade involved in manoeuvres with infantry of the Polish Corps. All are late M4A2 Shermans - the improved model which was manufactured until May 1944 when production switched to the so called Wet Stowage 76mm. Lacking the modifications to the ammunition stowage, these late M4A2s were the only Shermans to have a one-piece glacis and the factory-applied appliqué armoured plates on the hull sides - two on the right side where the ammunition bins were located and a single plate on the left. Of note are the final configuration of low-bustle turrets which included an oval loader's hatch, seen on these tanks. With the introduction of the one-piece glacis and the larger driver's hatches, the 75mm turret was redesigned to raise the rear bustle to allow the hatches to open and close regardless of the turret's rotation. Only a small number of large hatch hulls used these older, surplus low-bustle turrets which would theoretically have fouled the hatches. At the time these photographs were taken, 2nd Tank Army was under the command of the 1st Byelorussian Front. (J. Howard Parker)

If these vehicles were photographed in sequence, the first tank struggling with the deep mud may explain the presence of the many unditching logs seen in these three images. The Soviets complained about the poor flotation of the narrow tracked Vertical Volute Spring Suspension of the Sherman compared to their own medium and heavy tanks. In addition the high centre of gravity, added to the narrow width of the tracks, presented a higher risk of toppling over on steep grades. The Sherman was however far more comfortable - and therefor less tiring - and roomier, even allowing accompanying infantrymen to be housed in the tank in an emergency. The markings of this unit are shown and discussed in more detail on page 15. (J. Howard Parker)

It was commonly believed that the diesel fuel used with the M4A2 presented a lower fire risk if the tank was hit and this was undoubtedly one reason for the type's popularity. Tests carried out by the US Army however established that the high flammability of the Sherman was due to inadequate ammunition stowage and had no link to the type of engine fuel used. This problem was addressed by the introduction of a system referred to as Wet Stowage whereby the tank's ammunition racks were moved from the side sponsons to the hull floor and placed inside a protective, water filled bin. If the ammunition racks were penetrated the water would, in theory, prevent a fire from igniting the ammunition. In practice, the whole system was rendered useless if rounds were left scattered about the hull floor as they often were. Only the 76mm variant of the Emcha received this modification.

Another advantage was the Emcha's five man crew which left the commander free to control and observe. This efficient combination was not introduced in the T-34 until the production of the 85mm armed model in 1944. Added to this were the excellent American radios which allowed for efficient command and control.

Despite its advantages, the Soviets complained of a number of shortcomings in the Emcha in comparison to the T-34. Most notably were the inferior ballistic qualities of its non-sloped armour, its high profile, high centre of gravity, its lack of adequate flotation - caused by the narrow tracks - and its wider turning radius. The claim however that the T-34 was better armed should be regarded sceptically. The Emcha's 75mm main gun was roughly equal in penetrating power to the Soviet 76.2mm while its High Explosive (HE) performance was vastly superior - in fact, the US Army's 75mm HE shell was in a class of its own. The armour piercing capacity of the US 76mm gun was at least comparable to the Soviet 85mm as was proven in the Korean War - and the HE capability equal, in spite of the larger calibre of the Russian weapon. The American optical sights were also superior to the Soviet types, although it is probable that the stabilized gun of the American tank was not often utilised or even used to its full potential as it required extensive training and maintenance. And as regards the latter, the Soviets did indeed have a legitimate complaint, with few spare parts other than complete engines being delivered, necessitating such desperate measures as the cannibalisation of battlefield wrecks in order to keep vehicles running.

There seems to have been no attempt to alter the camouflage and markings in which the tanks were delivered including the vehicle's US Army registration number (see note 4). The single, known exception to this being the application of whitewash as a form of camouflage during the winter months. The notations in Russian that can be observed in many photographs stencilled onto the hull sides of numerous tanks were applied in the United States and were instructions regarding the vehicle's maintenance. The tactical numbers and markings applied by the Russians are a much more complex matter being decided at corps level or lower and records are either sparse or non-existent. For the most part our knowledge of their meaning is restricted to what western researchers have been able to decipher from photographs in the years since the end of the war.

Many readers will be unfamiliar with Soviet military organization and those accustomed to histories of the western armies may find the use of certain terms confusing. When the war in the east began in June 1941, the Soviet armoured force was made up of independent brigades, divisions and corps. Except for one or two units stationed in the Far East, the divisional organisation was quickly dropped and although some brigade sized formations continued to operate independently, the basic unit became the corps - roughly equivalent in size to a German division. Each corps was numbered and named according to its make-up and principal mission as either Cavalry, Rifles, Artillery, Airborne, Aviation, Mechanised or Tank and usually two or three corps were grouped into an army.

In 1944-1945, a typical Tank Army comprised two Tank Corps and one Mechanized Corps in addition to the various brigades and regiments of support weapons. Such a formation was capable of fielding, at full strength, approximately 600 tanks and 200 direct support self-propelled guns. The average Tank Corps comprised three Tank Brigades, with over 200 tanks and two regiments of self-propelled guns, with approximately 40 guns, and various support units. A typical Mechanized Corps could deploy three Mechanized Brigades, with three battalions of motorized infantry and a Tank Regiment, plus a Tank Brigade and various support units. Among the latter were three regiments of self-propelled artillery categorised as Light, Medium and Heavy. The Light regiment was usually equipped with SU-76 vehicles while the Medium regiment fielded the SU-85 or SU-100 and the Heavy regiment operated the powerful ISU-122 or SU-152. In total a Mechanised Corps contained over 180 tanks and more than 60 self-propelled guns. A detailed order of battle for the 1st Mechanised Corps during the fighting for Berlin is shown on page 33.

In 1945, the Soviets managed to field 6 Tank Armies deploying 17 Tank and Mechanized Corps, plus 19 independent Tank and Mechanized Corps, in addition to approximately 50 independent Tank Brigades and more than 100 Tank and SP Artillery Regiments.

The other large users of the Emcha were the Cavalry Corps, of which the Red Army had seven in 1944, all being subsequently upgraded to Guards status by the end of the war (see note 5). Of these, 5th Cavalry Corps and 7th Cavalry Corps are known to have received Emchas in 1944. Such a corps normally fielded three Cavalry Divisions, each of which deployed a Tank Regiment of approximately 40 tanks, probably one third of them Light tanks - typically British built Valentines - while the remaining two thirds were Mediums, in this case Emchas. The pairing of these Lend-Lease tanks was quite common in 1944-1945. Lastly, some independent regiments also received the Emcha while providing general support to infantry units as Army level troops.

The Soviet method of fighting mobile battles was referred to as the doctrine of Deep Battle. The first chapter of The Provisional Field Service Regulations for the Workers' and Peasants' Red Army of 1936 explained the principle thus: "The resources of modern defence technology enable one to deliver simultaneous strikes on the enemy tactical layout over the entire depth of his dispositions. There are now enhanced possibilities of rapid regrouping, of sudden turning movements, and of seizing the enemy's rear areas and thus getting astride his axis of withdrawal. In an attack, the enemy should be surrounded and completely destroyed".

To put it simply, the highly mobile tank and mechanised formations were not directed to search out and destroy large encirclements of enemy forces - this was the objective of the following infantry - but to move at top speed, regardless of casualties, towards important objectives deep in the enemy's rear and to hold them until the infantry caught up. Key facilities, such as railway networks, large supply depots, road junctions and bridges would be thus denied to the enemy, paralysing him and forcing his withdrawal. The type of formation best suited to this style of warfare was the Mechanized Corps, which had a better balance of tanks and infantry than the Tank Corps, and was therefore better suited to holding key objectives against the inevitable German counter-attacks. This may explain why many of the mechanically reliable Emchas were allocated to the various Mechanized Corps.

In retrospect, the Emcha constituted a large and arguably, the most successful part of the Lend-Lease Medium tank program to the USSR. It arrived too late to take part in the Stalingrad battles of late 1942 and early 1943 and had no real impact on the huge armoured engagements at Kursk in July 1943. Thus it missed the most critical - and most highly publicised - phase of the Eastern Front Campaign, when the conflict was truly still in the balance. Nevertheless, it was an important weapon system and provided a reliable, if unremarkable, tank to support the Soviet Blitzkrieg when it equipped a fair proportion of the Guards Mechanized Corps of 1944-1945.

Notes:

1: There is no obvious explanation for the discrepancy of 438 vehicles between the US and Soviet figures. Note that the US figure of 4,102 tanks shipped includes the 417 lost at sea. The detailed break-up by year given by the Russians is 36 for 1942; 469 for 1943; 2,345 for 1944 and 814 for 1945. Of the tanks supplied to front-line units, 36 were issued in 1942; 469 in 1943, 1,578 in 1944 and 570 in 1945.

2. Technical details and modifications incorporated during production are shown and discussed in the photographs and illustrations. Sources differ as to the exact number of tanks with the HVSS delivered with figures of either 122 or 183 cited.

3. The vast majority of these vehicles - approximately 72 percent - would go to the Soviet Union. Manufacture of the early M4A2 tanks was undertaken by the Fisher Tank Arsenal (actually run by General Motors), the Pullman Standard Car Company, the American Locomotive Company, the Baldwin Locomotive Works, and the Federal Machine and Welder Company. The 76mm variant was in the main produced by the Fisher Tank Arsenal with only 21 being built by the Pressed Steel Car Company. From December 1944 the Horizontal Volute Spring Suspension was incorporated into production.

4. An amusing, but possibly apocryphal, story suggests that Russian soldiers believed the USA prefix of each American vehicle's registration number actually stood for Ubiyat Sukinsyna Adolfa, or in English, kill that son of a bitch Adolf.

5. In September 1941, as a means of boosting morale, the Soviet government instituted the Guards title. Harking back to the traditions of the Imperial Army, the title was awarded to units which had shown conspicuous bravery in battle. The unit received a special banner, its men extra pay and rations, and from May 1942, Guards units had their own rank system and insignia. It is interesting to note that the unit in question received a completely new designation, for example, the 316th Rifle Division became the 8th Guards Rifle Division. Guard status could be rescinded however as in the case of the 214th Guards Cavalry Regiment which was unlucky enough to lose its flag in the battles around Debrecen in 1945.

Above: An SU-85 self-propelled gun leads a column of armoured vehicles into recently liberated Minsk in early July 1944, including a barely visible M4A2 in the background. This photo was chosen to illustrate the usual companion of the Emcha in action - a supporting self-propelled gun equipped with a more powerful anti-tank weapon - typically an SU-85 for the earlier 75mm armed Sherman and an SU-100 for the Sherman 76mm tank. As the war progressed, the ISU-122 was also used. At the left is a towed Soviet 37mm M1939 (61-K) anti-aircraft gun. (J. Howard Parker). Below: This late production M4A2 75mm with T54E1 tracks is being used as an observation post by German soldiers. The high angle of the sun reveals many useful details, such as the casting markings. Also of note are the periscope fittings on the inside of the commanders and drivers hatches, the travel lock for the 75mm gun, headlight brushguards and the two antennae of different lengths. Unfortunately no date or location were recorded in the official caption to this photograph (NARA)

Taken from the same series as the image shown on the previous page, this photograph offers a more detailed view of the high bustle turret and shield of the M34A1 gun mount. All high bustle turrets were manufactured with the oval loader's hatch - partly obscured by the man with the binoculars - added in an effort to ease the evacuation of the three turret crewmen. Directly to the left of the hatch opening is the travelling catch for the barrel of the .50 cal machine gun and below that can be seen the large, round turret ventilator. The loader's periscope is unfortunately hidden by the arm of the man at right, however the gun mount - or more correctly, rotor shield - is shown to good effect including the foundry casting marks to the right of the 75mm gun. At the extreme left in front of the open cupola, is an Alidade sight which could be used by the commander. Just to the left of the sight arrangement, and not included in our photograph, would be the gunner's periscope. (NARA)

This late production 75mm Emcha, knocked out and abandoned in a wood, is being put to good use by German infantry, serving as an extreme form of hard top cover over their trench. This photograph offers a good view of the hull rear including - just visible behind the German soldier - the tank's exhaust system and below that, part of the pintle towing hook. Mounted on the hull rear plate is a sledge hammer at left and the idler adjusting wrench at right. The turret has been turned completely to the rear allowing an underside view of the M34A1 gun mount including the .30 cal co-axial machine gun. The tracks are the T49 all steel version which the Soviets found somewhat lacking on snow and ice. (NARA)

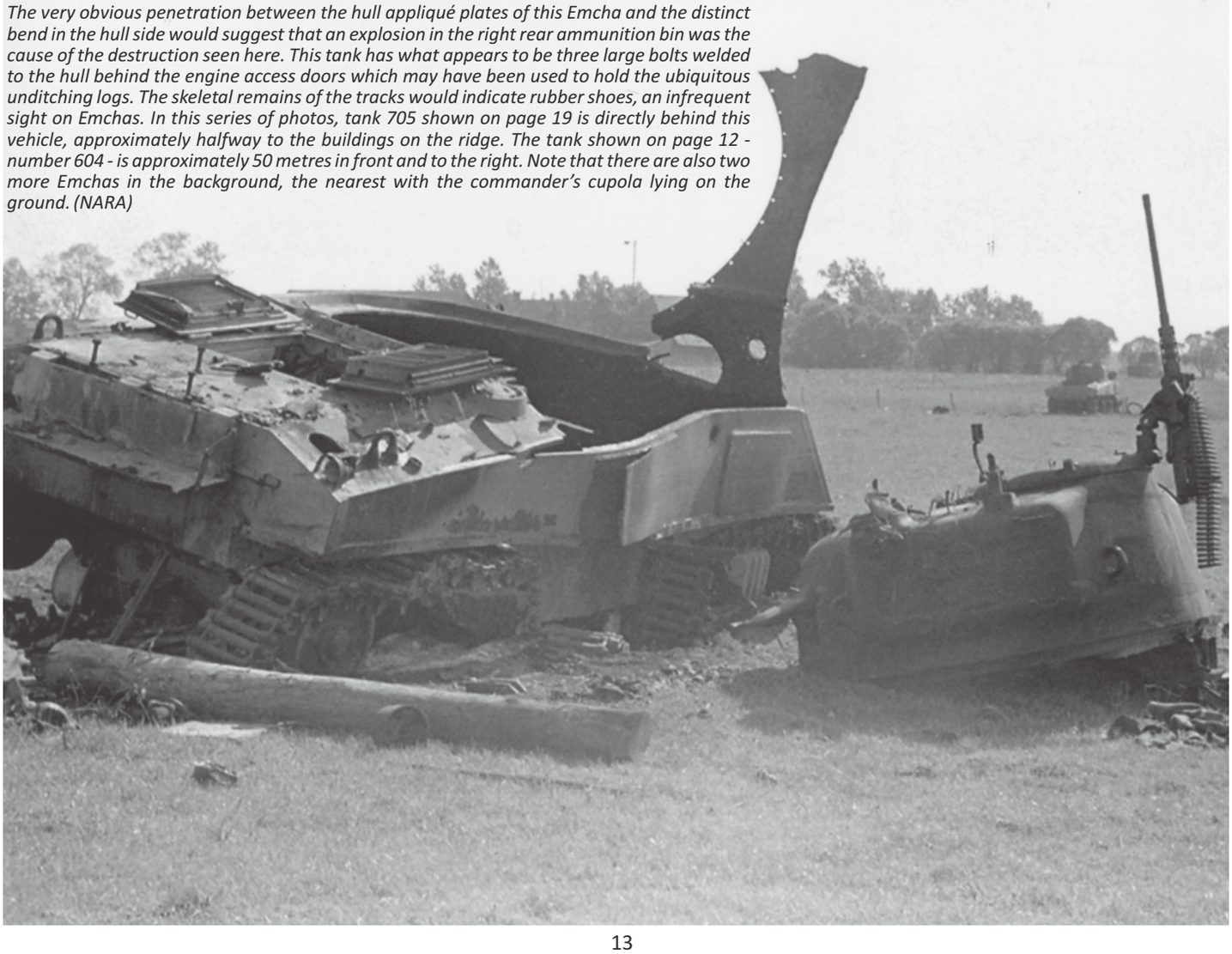
Both photographs on this page show late production 75mm armed Emchas damaged to varying degrees. Unfortunately no details are recorded in the official captions, but the summer of 1944 is highly probable as a date. The vehicle shown in the this photograph has the high bustle variant of the turret with twin anntennae. Note that the commander's cupola with its split hatch has been blown clear of the vehicle and numerous penetrations are visible on the side of the tank, including a number through the area near the rear bogie. The photograph below shows to good effect how the less steeply inclined, but thicker one-piece glacis of the later M4A2 could could withstand the impact of German armour piercing rounds. Clearly visible to the left and right of the hull machine gun are three large gouges were shells have failed to penetrate the tank's armour. The turret has also received a glancing blow just to the left of the M34A1 mount, which has also been hit just above and to the right of the co-axial machine gun. The transmission cover, where the angle was near vertical, has been penetrated by two very closely spaced shots while another round has hit the left towing lug. Almost completely hidden by the ground cover, to the left of the German infantrymen, is the outer ring of the drive sprocket. (NARA)

This photograph shows the same Emcha depicted at the bottom of the previous page from a slightly different angle and distance. The upswept arm for the return rollers, a feature of the later style of bogie, is clearly visible here. This modification finally solved the problem of insufficient track support for the top run of track. Also shown to good effect is the weld bead around the hull appliqué armour and front glacis plate. The dark marking visible on the turret, following the line of the gun mount and lower turret edge, is the remains of the adhesive protective covering used when these tanks were shipped from the United States. (NARA)

Clearly shown in this photograph is the all metal T54E1 track - three shoes of which have been mounted facing backward. This is commonly seen with this type of track and had no adverse effect on the vehicle's performance. A large tactical number 604 - possibly in white - can be seen on the turret side and this style of marking was typical from 1944 onwards. An internal explosion has blown the entire rear deck - including the heavy engine access doors - clear of the tank. The unditching log however remains in place. (NARA)

Although badly burnt, a tactical marking and number are still visible on the turret of this late production 75mm Emcha, the first two digits being 70. Similar markings can be seen on the vehicle depicted in the photograph at the top of page 19 and it would seem reasonable to assume that three digit numbers were used throughout this unit. (NARA)

The very obvious penetration between the hull appliqué plates of this Emcha and the distinct bend in the hull side would suggest that an explosion in the right rear ammunition bin was the cause of the destruction seen here. This tank has what appears to be three large bolts welded to the hull behind the engine access doors which may have been used to hold the ubiquitous unditching logs. The skeletal remains of the tracks would indicate rubber shoes, an infrequent sight on Emchas. In this series of photos, tank 705 shown on page 19 is directly behind this vehicle, approximately halfway to the buildings on the ridge. The tank shown on page 12 - number 604 - is approximately 50 metres in front and to the right. Note that there are also two more Emchas in the background, the nearest with the commander's cupola lying on the ground. (NARA)

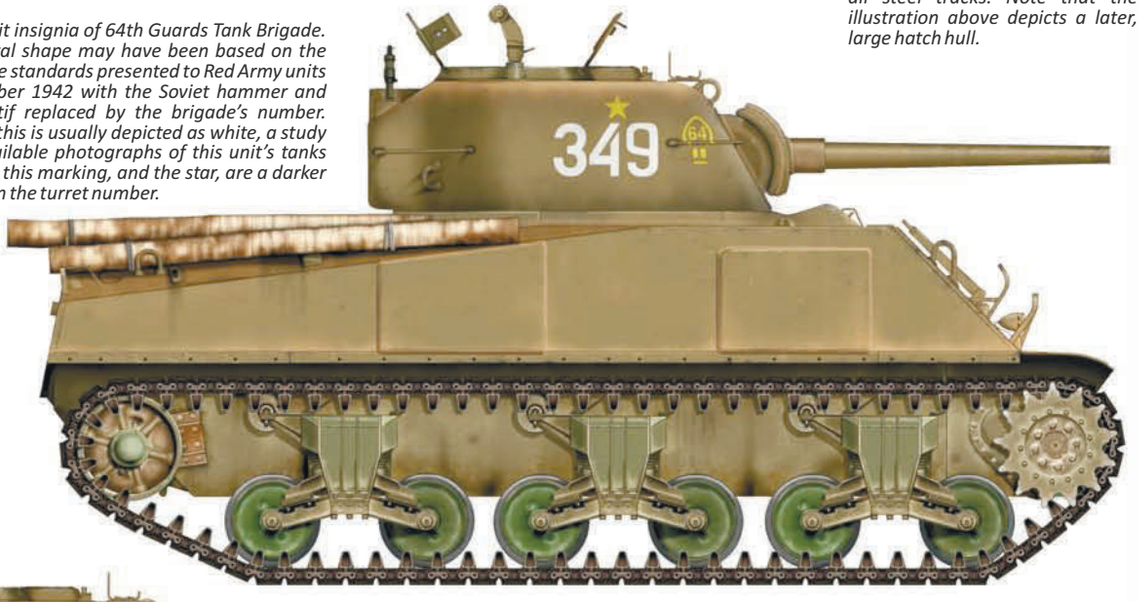


Both photographs on this page show the same 75mm armed Emcha knocked out and abandoned close to the farm buildings visible in the background of the photograph at the bottom of page 13. The luggage rack on the rear plate is in the folded position and tree branches have been inserted there, presumably to provide some kind of camouflage. Two closely grouped penetrations can be seen near the rear ammunition stowage bin appliqué armour. The commander's split hatch has been blown clear of the vehicle and can be seen lying to the right of the drive sprocket. The rarely seen factory installed D70675 exhaust deflector is clearly visible here, as is the .50 cal M2 HMG stowed on the rear of the turret. (NARA)

Below: M4A2. Unit unknown. Leningrad Front, winter 1943 - 1944. *Although the photograph on which this illustration is based was taken in the depths of winter, this tank's coat of white camouflage paint has been almost completely worn off. The crudely applied number 209 is also typical of this period.*

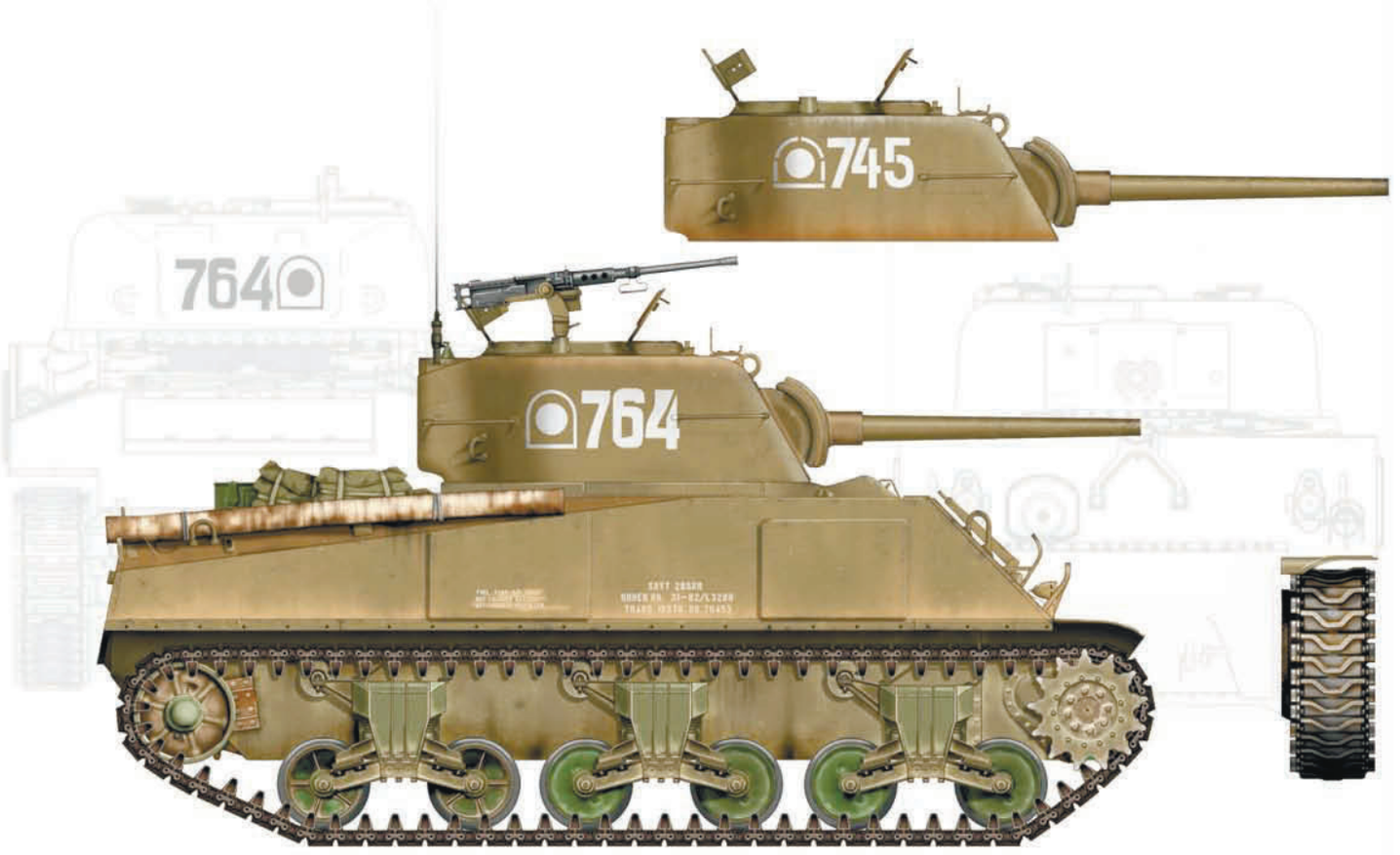
Above: Although the detail in our photograph is unclear, it is likely that this tank was fitted with T49 all steel tracks. Note that the illustration above depicts a later, large hatch hull.

At left: Unit insignia of 64th Guards Tank Brigade. The general shape may have been based on the finial of the standards presented to Red Army units in November 1942 with the Soviet hammer and sickle motif replaced by the brigade's number. Although this is usually depicted as white, a study of the available photographs of this unit's tanks show that this marking, and the star, are a darker shade than the turret number.



Above, at left and below: M4A2. 64th Guards Tank Brigade. Poland, summer 1944. *All the available photographs of this unit's Emchas show the metal handrails depicted here welded to the turret with only slight variation in the placement between individual vehicles. Note that the tank shown below has an additional handrail welded to the hull and this may have been common, if not universal, throughout the brigade being hidden in photographs by the unditching logs which almost every tank carried. Also note that this unit's Emchas featured low bustle turrets on large hatch hulls.*

Above and right: M4A2. 64th Guards Tank Brigade. Poland, summer 1944. *The exact significance of the numbering system used on this brigade's tanks is unknown but it is likely that the tanks were numbered consecutively, beginning with a number decided upon by the brigade commander - possibly 300. It has also been suggested that the battalions depicted the brigade insignia and star in different colours although this cannot be confirmed by the available evidence. Tank number 346, shown on the front cover also has what appears to be a small flag painted in white on the hull appliqué armour.*

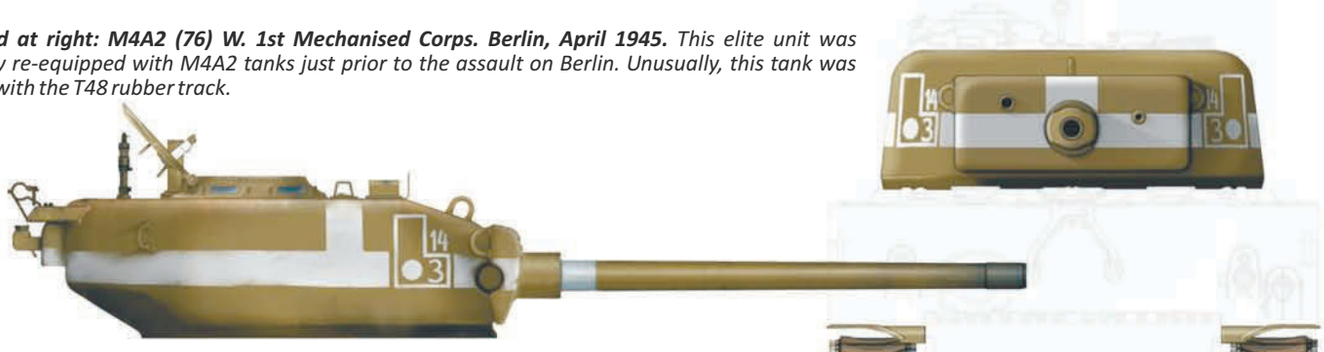


114th Tank Regiment, 7th Guards Cavalry Corps. Poland, summer 1944. *By mid-1944, the style of marking shown here - based on a three digit number and a unit insignia - usually of some geometric design - was commonly seen on the Red Army's Sherman tanks. Note however the slight variations depicted here where some markings were apparently applied using a stencil while others are very obviously hand painted. The style of number also has a distinctly Russian flavour. The three tanks shown at the top of the page were all photographed in the same location at the same time and all the other vehicles in the sequence were also numbered with 700 numbers. The tank numbered 204 may be a headquarters vehicle or possibly from another unit entirely as an identical insignia has also been seen on an SU-76 photographed sometime earlier. Note also that this tank does not have the additional handrails common to the others. The eminently practical Russians saw no need to repaint Lend-Lease vehicles and shipping stencils, as shown on the tank at the top of the page, were very common and seem to have incorporated more information - in both English and Russian - as the war progressed.*

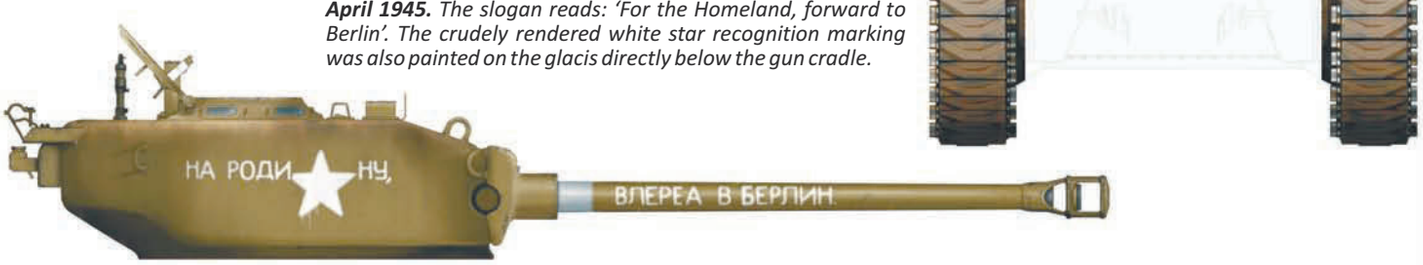
Below: M4A2 (76) W. 64th Guards Tank Regiment, 8th Guards Mechanised Corps. Germany, May 1945. *Note that the vehicle's number, 573, is repeated on the transmission housing. This tank is also shown on page 29.*

Below: M4A2 (76) W. 64th Guards Tank Regiment, 8th Guards Mechanised Corps. Germany, May 1945. *The stenciling on the hull side was applied prior to shipment from the USA and contained instructions regarding fuel, anti-freeze, type of battery and also the order number and final destination. While we have endeavored to faithfully reproduce the English version, the Cyrillic text - towards the hull front, is largely fictitious except for the heading which reads: 'ATTENTION'. The style of lettering, size and shape however, are accurate. This tank is also shown and discussed on page 29.*

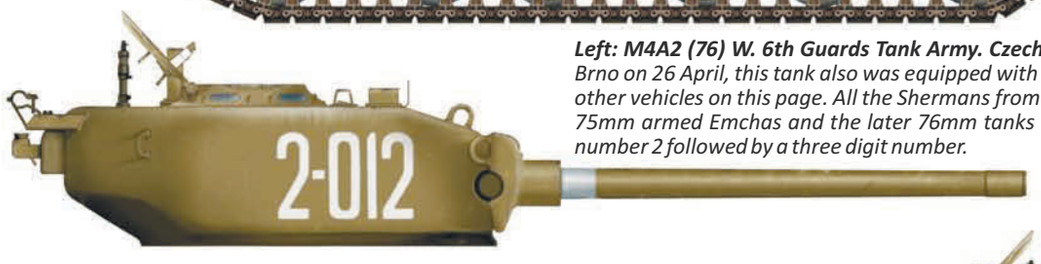
Below and at right: M4A2 (76) W. 1st Mechanised Corps. Berlin, April 1945. *This elite unit was completely re-equipped with M4A2 tanks just prior to the assault on Berlin. Unusually, this tank was equipped with the T48 rubber track.*



Below: M4A2 (76) W. 2nd Guards Cavalry Corps. Germany, April 1945. *The slogan reads: 'For the Homeland, forward to Berlin'. The crudely rendered white star recognition marking was also painted on the glacis directly below the gun cradle.*



M4A2 (76) W. 9th Guards Tank Brigade, 1st Guards Mechanised Corps. Austria, spring 1945. *Unusually for an Emcha, this tank carries a patriotic slogan on the hull side which reads: 'For The Motherland'. This vehicle is also shown on page 27.*



Left: M4A2 (76) W. 6th Guards Tank Army. Czechoslovakia, spring 1945. *Photographed in Brno on 26 April, this tank also was equipped with the T54E1 all steel tracks as shown for the other vehicles on this page. All the Shermans from this sequence of photographs - both early 75mm armed Emchas and the later 76mm tanks - were marked similarly beginning with a number 2 followed by a three digit number.*

M4A2 (76) W. 3rd Guards Tank Brigade, 1st Guards Mechanised Corps. Austria, spring 1945. *In the original print of the photograph on which this illustration is based, a faint, light-coloured band is just visible on the turret, over which the number 334 has been painted. This tank is also shown on page 27.*

M4A2 (76) W. 9th Guards Mechanised Corps. Austria, spring 1945. *The extensive shipping instructions, which by now almost covered the hull sides of Lend-Lease Shermans, have apparently been covered here with fresh paint.*

Taken from the same series of photographs as the vehicles shown on page 16, these two late production 75mm Emchas are also almost certainly from the same unit. The turret number 705 is clearly visible in this photograph and the turret number 704 seen in the image above is accompanied by a tactical or unit marking, the significance of which is unfortunately unknown. Other photographs in this series show several knocked-out SU-85 self-propelled guns which were most probably providing long range fire support but were also caught in the trap. (NARA)

The last of the series of photographs of destroyed Emchas - making ten in all - which began on page 12. Here again, a violent internal explosion has forced open the heavy engine access doors - visible just to the left of the soldiers head - blown out the hull sponson and caused the turret to topple over. A small diameter penetration is visible on the hull side. The method of welding the rail used to mount the sand shield to the hull is clearly illustrated here as are the details of the heavy duty bogie with the later upswept arm and all metal return roller. (NARA)

Although we have no official caption, these photos were probably taken in a Romanian town in April 1944, and show two late 75mm Emchas. The tank in the photograph above clearly shows the shipping stencils applied in the United States and proves that this tank at least, was not repainted by its new owners. The factory applied US Olive Drab finish was highly regarded for its excellent adhesive properties and rarely chipped. Moreover it was close enough in colour to the 4BO camouflage dark green finish of the Soviet armoured vehicles making repainting unnecessary. (NARA)

Below: Another view of the Emcha shown on the preceding page. Unusually this tank appears to have no appliqué armour on the hull side. (NARA) At right: The Medal for Valour in Battle, a bright silver medallion with a silver, edged blue ribbon and the Order of Bravery 3rd Class, a pale bronze star with red enamel detail in the scroll and small star at the centre of the wreath.

RED ARMY SHERMAN UNITS

This list is far from exhaustive but does go some way towards accounting for the more than 4,000 M4A2 tanks sent to the Soviet Union between 1943 and 1945. During the Cold War the Soviet government deliberately disparaged the importance of the Lend-Lease program preferring to stress the contribution made to victory in blood by ordinary Russian soldiers. Further, where records were kept they were either inaccurate or incomplete, for example merely describing all Sherman tanks as "Detroit built". We can say however that of the total number received, some 2,073 were armed with the 75mm gun while the remainder had the 76mm weapon. Among the latter were a small number of very late HVSS models that saw combat in the Far East.

★***1st Guards Mechanised Corps.*** *Formed in November 1942 from 1st Guards Rifle Division, this unit was completely re-equipped - apparently at the insistence of Marshal Rokossovski - with M4A2 tanks in January 1945. The fact that this was considered an elite unit speaks volumes for the capabilities of the Lend-Lease Shermans. The corps took part in the siege of Budapest and the storming of Vienna as part of 3rd Ukrainian Front. In February 1945, after fighting in Hungary, the corps had 184 M4A2 tanks on hand. By March this total had been reduced to forty-seven. The armoured elements of 1st Guards Mechanised Corps were 16th Guards Tank Regiment and 17th Guards Tank Regiment.*

★***1st Mechanised Corps.*** *Disbanded in late 1941 and reformed in August-September 1942 from the remnants of 27th Tank Corps, this formation was attached to 2nd Guards Tank Army of 1st Byelorussian Front during the fighting in Berlin in April and May 1945. This formation is discussed in more detail on page 33.*

★***3rd Guards Mechanized Corps.*** *Formed from 4th Mechanized Corps in December 1942, this unit fought in the Stalingrad encirclement and at Kursk in 1943. During early 1944 the corps was equipped with M4A2 Shermans and British Valentine tanks. The Shermans were dispersed throughout 35th Guards Tank Brigade, 7th Guards Tank Brigade, 8th Guards Tank Brigade and 9th Guards Mechanized Brigade. In June 1944 the corps was attached to 3rd Byelorussian front as part of a special, highly mobile formation known as the Oslikovskiy Cavalry-Mechanised Group with 3rd Guards Cavalry Corps. In July the corps was attached to 1st Baltic Front. In January 1945, as part of 1st Pribaltisky Front, this unit had 176 M4A2 tanks on hand including 108 of the 76 mm armed version. The corps took part in the invasion of Manchuria as part of the Transbaikal Front. In recognition of its service, this unit was granted the honorific title Stalingrad-Krivorozhskaya.*

★***5th Mechanised Corps.*** *Colonel Dmitry Loza, a highly decorated veteran and author of Commanding The Red Army's Sherman Tanks, states that at least his unit, the 233rd Tank Brigade, was completely equipped with M4A2 tanks and implies that the other regiments of the corps were similarly equipped. Interestingly Colonel Loza states emphatically that most, if not all, of his brigade's Shermans were the 76mm version.*

★***8th Guards Mechanized Corps.*** *Formed from 3rd Mechanised Corps in October 1943, this formation took part in some of the most important battles fought on the Eastern Front including Kursk, the fighting around Zhitomir-Berdichev, Korsun-Shevchenkovsky, Proskurov-Chernovits, and Lvovin in Poland. In January 1945, 8th Guards Mechanised Corps had 185 M4A2 tanks on hand and went on to fight at Warsaw, in Pomerania and in the final battle for Berlin. From its formation the corps was part of 1st Guards Tank Army and was made up of 1st Guards Tank Brigade, 19th Guards Mechanized Brigade, 20th Guards Mechanized Brigade and 21st Guards Mechanized Brigade. In 1945, 64th Guards Tank Regiment was also attached to this corps. In April 1944 this unit was awarded the honorific title Carpathian and is also referred to in some sources as 8th Red Guards Aleksandriysky Mechanized Corps.*

★***9th Guards Mechanized Corps.*** *Formed from 5th Mechanized Corps in September 1944 with 126 M4A2 tanks. This unit was attached to 6th Guards Tank Army during the fighting for Vienna in early 1945. From its formation until the end of the war the corps was made up from 46th Guards Tank Brigade, 18th Guards Mechanized Brigade, 30th Guards Mechanized Brigade and 31st Guards Mechanized Brigade.*

★***9th Mechanized Corps.*** *This formation began to receive M4A2 tanks in late 1943 and early 1944. The corps took part in the invasion of Manchuria as part of the Transbaikal Front and was made up of 116th Tank Regiment, 69th Mechanized Brigade and 70th Mechanized Brigade. At that time the corps had 137 M4A2 tanks on hand.*

★***3rd Guards Tank Corps.*** *Formed from 7th Tank Corps in late 1942, this unit was awarded the title Kotelnikovskikh the following year. From mid-1944 the corps was made up of 3rd Guards Tank Brigade, 18th Guards Tank Brigade, 19th Guards Tank Brigade and 2nd Guards Mechanised Brigade. In June 1944, during Operation Bagration, the corps was attached to 5th Guards Tank Army. This unit also fought in East Prussia with 3rd Guards Cavalry Corps as part of 19th Army. For the final battles in Berlin the corps was attached to 1st Byelorussian Front.*

★***8th Guards Tank Corps.*** *In the summer of 1944, this formation's 58th Guards Tank Brigade was equipped with Shermans. Quite probably 59th and 60th Guards Tank Brigades also had Emchas.*

★***18th Tank Corps.*** *Formed in June 1942, this unit served with 2nd and 3rd Ukrainian Fronts in late 1944 and into 1945 taking part in the fighting in Hungary. Mostly equipped with IS-2 heavy tanks and SU-85 and ISU-152 self-propelled guns, the corps did have a small number of M4A2 tanks on hand in January 1945. These had however all been lost by March.*

★***2nd Guards Cavalry Corps.*** *This unit took part in battle for Berlin while attached to 33rd Army of 1st Byelorussian Front. Although it is known that this corps had a number of M4A2 tanks, no further details are available.*

★***5th Guards Cavalry Corps.*** *In March 1945 as part of 3rd Ukrainian Front this corps had a small number of M4A2 tanks on hand, perhaps as few as two.*

★***47th Mechanised Brigade.*** *This brigade's 18th Tank Regiment was equipped with M4A2 tanks at the end of 1944.*

★***63rd Tank Brigade.*** *This unit had a number of Emchas on hand for a short time during 1944.*

★***64th Guards Tank Brigade.*** *This brigade took part in the fighting in eastern Germany in 1945. The brigade had at least some 76mm armed M4A2 tanks on hand at that time.*

★***140th Tank Brigade.*** *This brigade had a number of Sherman tanks on hand during 1943.*

★***153rd Tank Brigade.*** *As part of 31st Army of 3rd Byelorussian Front, this independent brigade took part in the fighting for Königsberg and had on hand thirteen M4A2 and thirty-two T-34 tanks in mid-January 1945. By the end of January only five of the Shermans were still serviceable and by February all had been lost.*

★***201st Tank Brigade.*** *Made up of the 295th and 296th Tank Battalions, this independent brigade was with the Transbaikal Front in Manchuria in August 1945.*

★***208th Medium Self-propelled Gun Brigade.*** *Formed in December 1944 this unit was attached to 3rd Ukrainian Front. Although at least one source states that the brigade had 184 M4A2 tanks on hand in March 1945, this number seems far too large being almost enough to equip a complete corps.*

★***48th Separated Tank Batalion.*** *In an effort to bolster the infantry's offensive capability, some infantry divisions received an armoured battalion referred to as a Separated Tank Battalion. Intended to act in co-operation with the infantry, these battalions were made up of two companies of medium tanks and one of light tanks. The 48th Separated Tank Battalion was attached to the Transbaikal Front in 1945 and had a small number of M4A2 tanks on hand.*

★***59th Independent Tank Regiment.*** *This unit is mentioned as having a number of Emchas on hand. No further details are available at this time.*

★***60th Separated Tank Regiment.*** *Attached to 5th Guards Cavalry Corps in 1944, the regiment had twenty M4A2 tanks on hand at that time.*

★***70th Separated Tank Regiment.*** *Attached to 5th Guards Cavalry Corps in 1944, the regiment had twenty M4A2 tanks on hand at that time.*

★***223th Independent Tank Regiment.*** *This regiment had a number of M4A2 tanks on hand at the time of Operation Bagration.*

★***229th Separated Tank Regiment.*** *This regiment is mentioned in official correspondence as having a number of M4A2 tanks on hand as part of Central Front in 1943 and may have fielded 38 at Kursk - although this is uncertain. No further details are available at this time.*

★***230th Independent Tank Regiment.*** *This regiment had a number of M4A2 tanks on hand at the time of Operation Bagration.*

★***257th Independent Tank Regiment.*** *This unit is mentioned as having a number of Emchas on hand. No further details are available at this time.*

★***563rd Separated Tank Battalion.*** *In early 1943 this unit, sometimes referred to as the 563rd Independent Battalion, was completely equipped with M3 Light tanks and was trained for amphibious operations. It is possible that the battalion received a small number of Shermans as part of the North Caucasian Front in late 1943.*

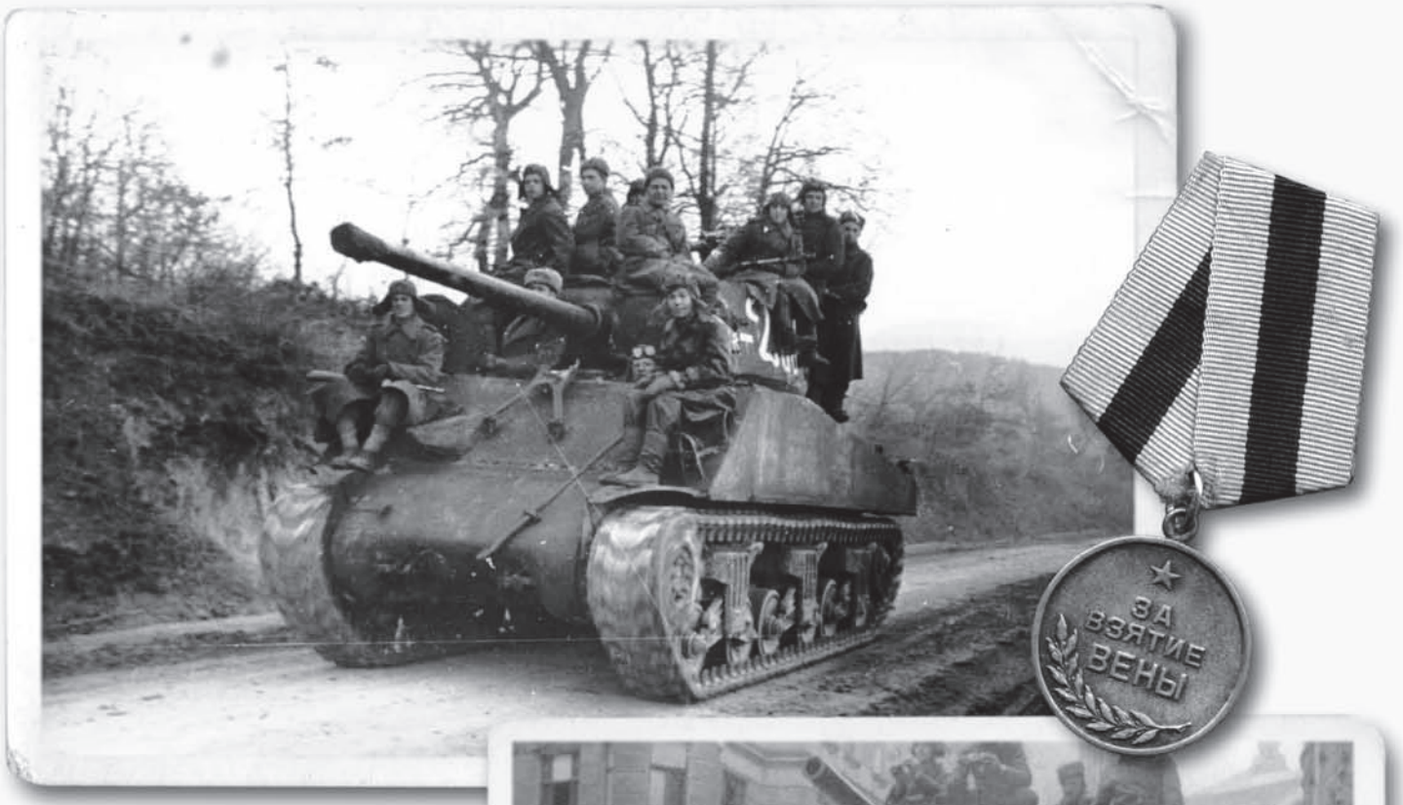
Photographed in what is probably a Romanian town in April 1944, this battered, late 75mm Emcha is equipped with T49 steel track, and is missing the headlight brushguards, the siren and guard and one of the front fenders. The weather is fine and the crew are glad to leave the confines of the tank. In his book, Commanding The Red Army's Shermans, Colonel Dimitryi Loza explained at some length the problems encountered with the overheating of the tank's suspension during the extremely hot summer of 1944. The going in Romania however was mostly uneventful as the country quickly changed sides when the Red Army moved close to its Eastern border. (J. Howard Parker)

Laden with a large amount of stowage - at least by Soviet standards - a 76mm Emcha is seen here parked behind an early 75mm armed model with a low bustle turret. Local foliage has been stacked against the turret of the nearest vehicle, presumably to act as camouflage. Of note is the split loader's hatch of the tank's T23 turret. What appears to be an Anti-aircraft Half-track - mounting the quad .50 cal heavy machine gun is just visible in the background of this photo. (Archive Of Modern Conflict)

Photographed in the town of Stuhlweissenburg, Hungary on 2 February 1945, the unfortunate crew of this badly burnt 76mm Emcha are a grisly reminder of the ferocity of the fighting on the Eastern Front. A smaller tactical number - either 920 or 926 - is painted on the rear of the turret in a position and style so similar to that used by 9th Guards Tank Brigade of 1st Guards Mechanised Corps that some connection would seem certain. (Archive Of Modern Conflict)

TAKING VIENNA

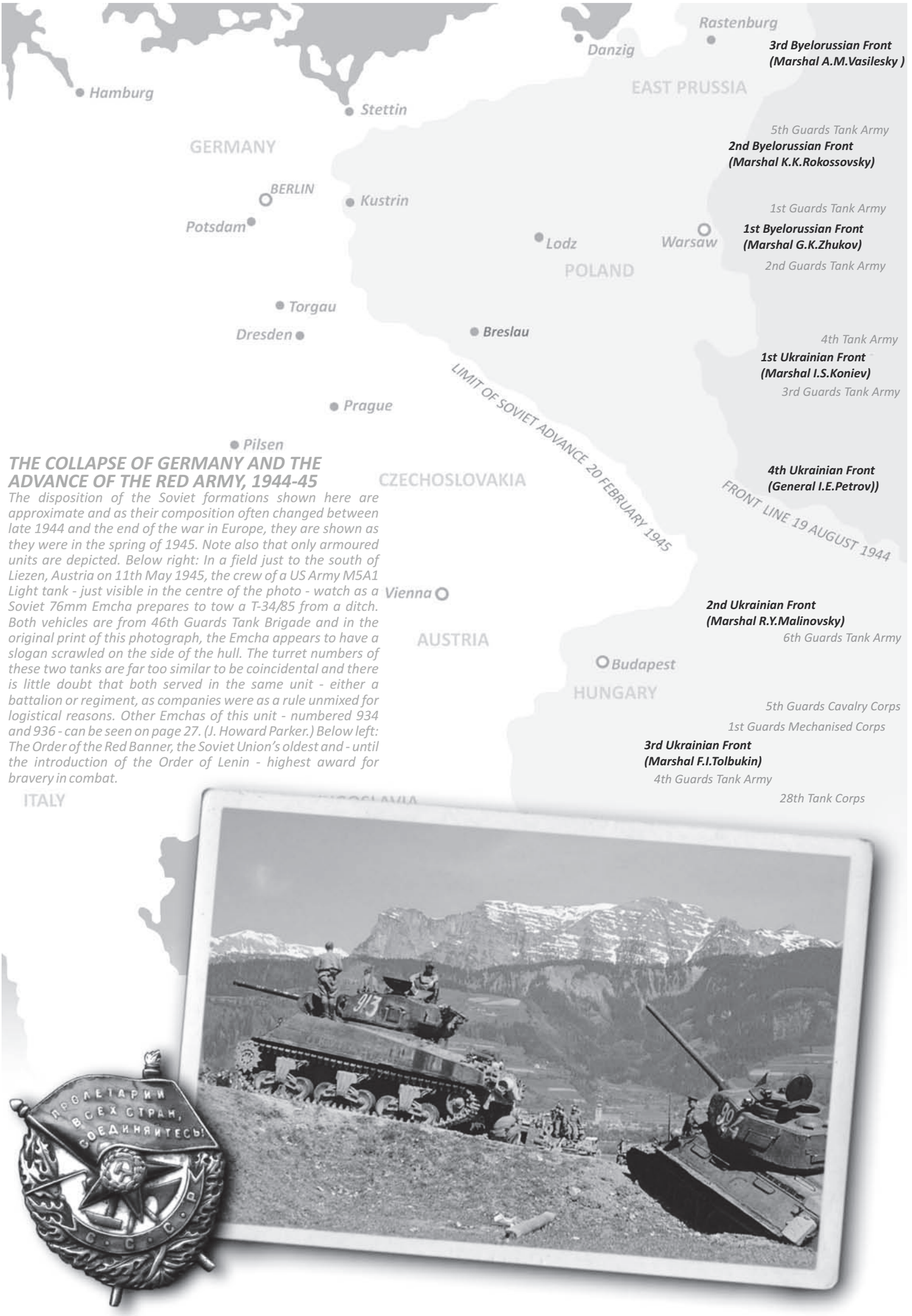
The Austrian capital fell to Marshal Fyodor Tolbulkin's 3rd Ukrainian Front - made up of 4th Guards Tank Army, 6th Guards Tank Army, 9th Guards Army and 46th Army - on 13 April 1945. Below, right: The Capture of Vienna Medal awarded to Soviet and Bulgarian troops who took part in the battle. Shown on the facing page is the reverse of this medal and the Order of Lenin, the highest award bestowed by the Soviet Union.



Above: Photographed outside Vienna in March 1945, this 76mm Emcha is from 9th Guards Mechanised Corps - the same unit as the early M4A2 shown on page 3. Note the roughly hand painted turret number - possibly 1-206. The driver has raised his seat for a better view and the Tanko Desantniki - the tank's accompanying infantry - are quite relaxed suggesting that combat is unlikely. At right: This early 75mm armed Emcha of 1st Guards Mechanised Corps was reportedly the first Soviet tank to enter Vienna, doing so on 16 March 1945. It had no appliqué plates on the glacis or the hull side - both confirmed in other photographs - but does have a gun travel lock on the glacis. The Emchisti - as the Emcha tankers were known - are Lieutenant I.G.Dronov on the left and Sergeant N.I.Idrisov. The tank's gunner was Sergeant Ljapin.

At left: An early model 75mm armed Emcha of 1st Guards Mechanised Corps photographed on Kärtnerstrasse near the centre of Vienna as the Red Army enters the city. The last part of the tank's number is visible on the turret side and would in all likelyhood be in a similar style to that displayed on the vehicle at the top of the page. The unditching logs - so common to Russian tanks operating in the Ukraine and Poland - were dispensed with as the Soviets advanced further into western Europe and the superior road networks of Czechoslovakia, Austria and Eastern Germany. Somewhat ironically, the Sherman, famed for its mechanical reliability, was at this time beginning to equip an increasing number of Soviet units. (J. Howard Parker)

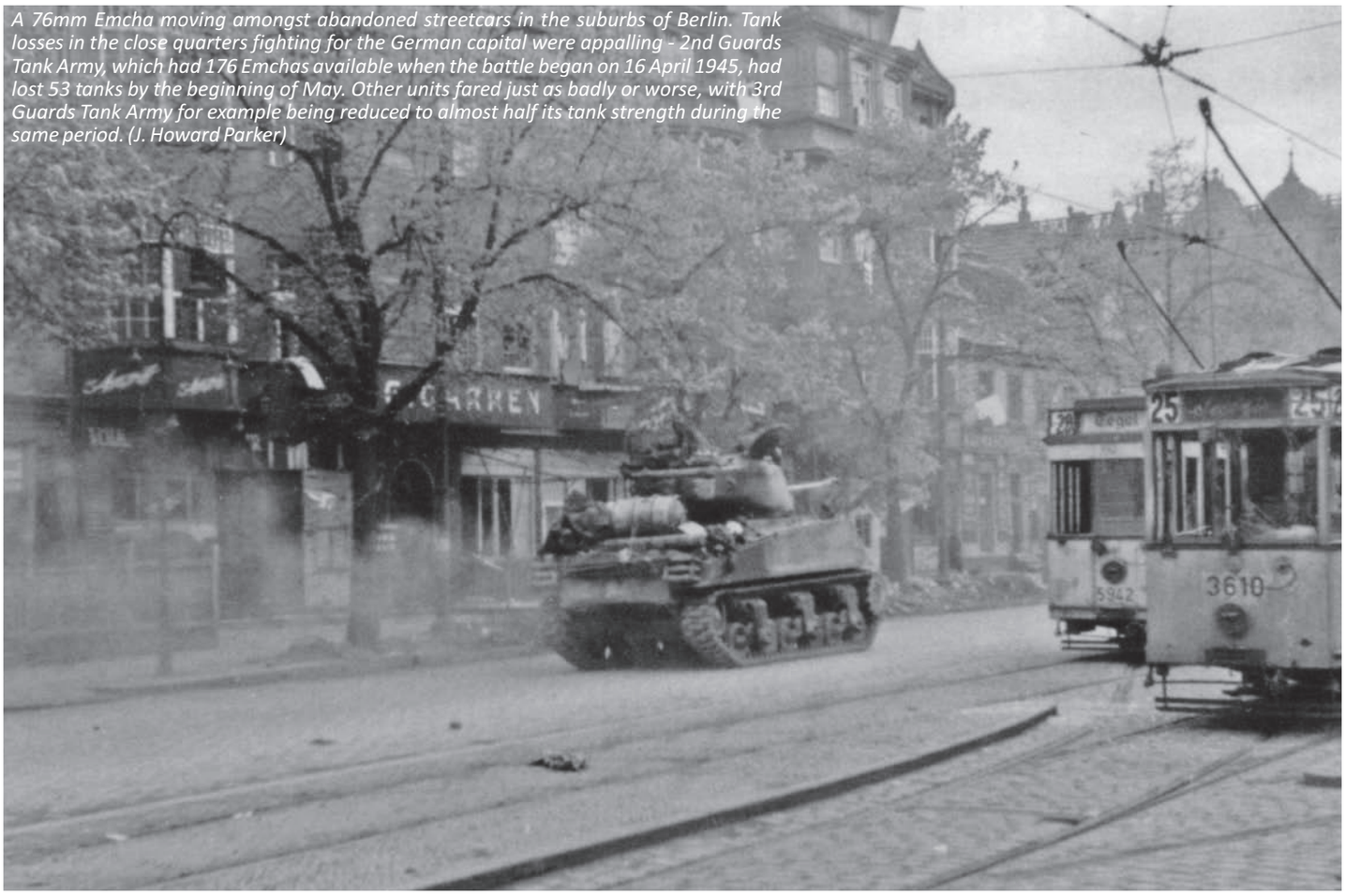
Above: Lieutenant J.A.Morianin of 1st Guards Mechanised Corps photographed in a Vienna street in front of one of his platoon's Emchas. This unit, under the command of Morianin, was the first to enter the city and the tank shown here - numbered 02 - can also be seen in the background of the photograph of Lieutenant Dronov and Sergeant Idrisov reproduced on the previous page. Just visible in this image - although quite conspicuous in other photographs of this vehicle - is a thin red band painted around the top edge of the turret. Of note are the large hubbed road wheels. The available photographic evidence would strongly suggest that all the Soviet 76mm armed Emchas were fitted with either the D52861 concave design or the D52876 spoked, large hubbed wheels. At left: Two 76mm armed Emchas of 1st Battalion, 46th Guards Tank Brigade of 9th Guards Mechanised Corps photographed in Vienna in mid-March 1945. The tank nearest the camera, numbered 936, bears a slogan on the hull side which translates into English as 'For Motherland!'. Patriotic slogans, although commonly seen on other Russian armoured vehicles, would seem to have been rarely applied to Shermans. Photographs of this tank, taken some weeks later, show that the letters had almost completely worn off. This vehicle is also shown in the colour illustration section on page 18. Bottom left: A 76mm Emcha of 3rd Guards Tank Brigade, 1st Guards Mechanised Corps. The large hub road wheels are quite evident here. This vehicle is also shown in the colour illustration section on page 18. Top left: The reverse of the Capture of Vienna Medal and the Order of Lenin. The latter could be awarded for conspicuous service - one criteria being the destruction of ten enemy tanks.(J. Howard Parker)



THE COLLAPSE OF GERMANY AND THE ADVANCE OF THE RED ARMY, 1944-45

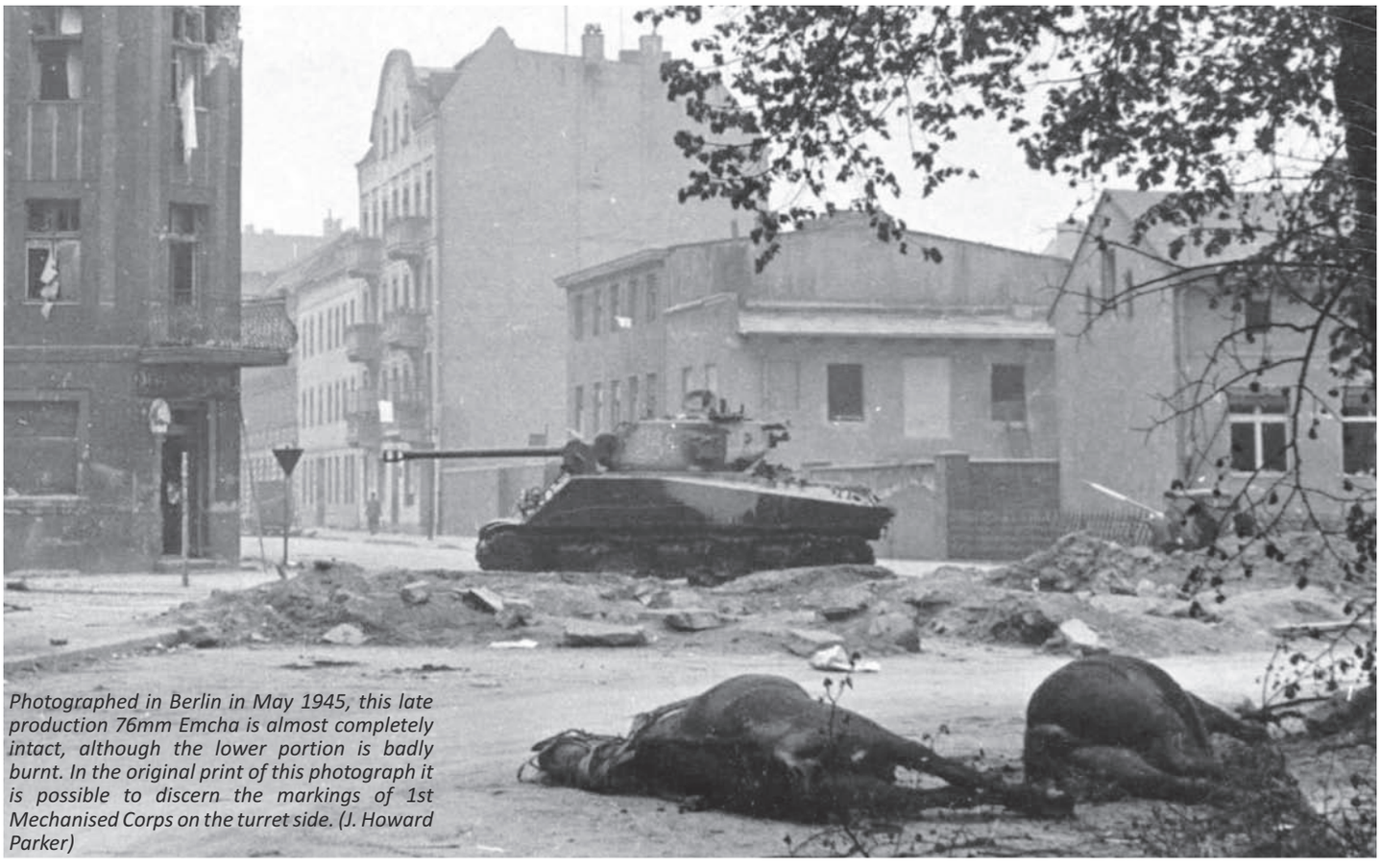
The disposition of the Soviet formations shown here are approximate and as their composition often changed between late 1944 and the end of the war in Europe, they are shown as they were in the spring of 1945. Note also that only armoured units are depicted. Below right: In a field just to the south of Liezen, Austria on 11th May 1945, the crew of a US Army M5A1 Light tank - just visible in the centre of the photo - watch as a Soviet 76mm Emcha prepares to tow a T-34/85 from a ditch. Both vehicles are from 46th Guards Tank Brigade and in the original print of this photograph, the Emcha appears to have a slogan scrawled on the side of the hull. The turret numbers of these two tanks are far too similar to be coincidental and there is little doubt that both served in the same unit - either a battalion or regiment, as companies were as a rule unmixed for logistical reasons. Other Emchas of this unit - numbered 934 and 936 - can be seen on page 27. (J. Howard Parker.) Below left: The Order of the Red Banner, the Soviet Union's oldest and - until the introduction of the Order of Lenin - highest award for bravery in combat.

Both photographs on this page show 76mm Emchas from 64th Guards Tank Regiment of 8th Guards Mechanised Corps in Grabow, Germany on 3 May 1945. The factory applied shipping stencils in both English and Russian are quite visible in the image above and a large slogan - which translates as 'Forward To Victory' - has been painted on the hull side. Although we have not been able to comprehensively translate the stenciled Cyrillic characters, it is certain that some parts at least are direct translations of the English instructions regarding the capacity of the fuel tank, battery type and anti-freeze. There are also references to the order and transport numbers. It would seem that the Russian instructions differ only in being preceded by the word attention in decidedly larger letters. These Emchas are also equipped with muzzle brakes - a late addition to the 76mm gun. Note that the tank in the lower photo also has its tactical number painted on the final drive housing. Both vehicles are also shown in the illustration section on page 17. (Author's Collection)



A 76mm Emcha moving amongst abandoned streetcars in the suburbs of Berlin. Tank losses in the close quarters fighting for the German capital were appalling - 2nd Guards Tank Army, which had 176 Emchas available when the battle began on 16 April 1945, had lost 53 tanks by the beginning of May. Other units fared just as badly or worse, with 3rd Guards Tank Army for example being reduced to almost half its tank strength during the same period. (J. Howard Parker)

At least one Soviet caption uses the phrase 'happy German women' in reference to the civilians shown in this photograph - the implication being of course, that they have been liberated by the Soviet tank crew. This is a late production 76mm VVSS Emcha photographed in a Berlin street in May 1945. Just visible on the turret side behind the raised driver's hatch, is the marking of 1st Mechanised Corps. Of note also is the oval loader's hatch, the gun's muzzle brake and the lifting eyes on the outer edges of the glacis. Noteworthy is the ISU-122 in the background, as by this stage of the war tanks rarely fought without the support of heavy self-propelled guns. (J. Howard Parker)



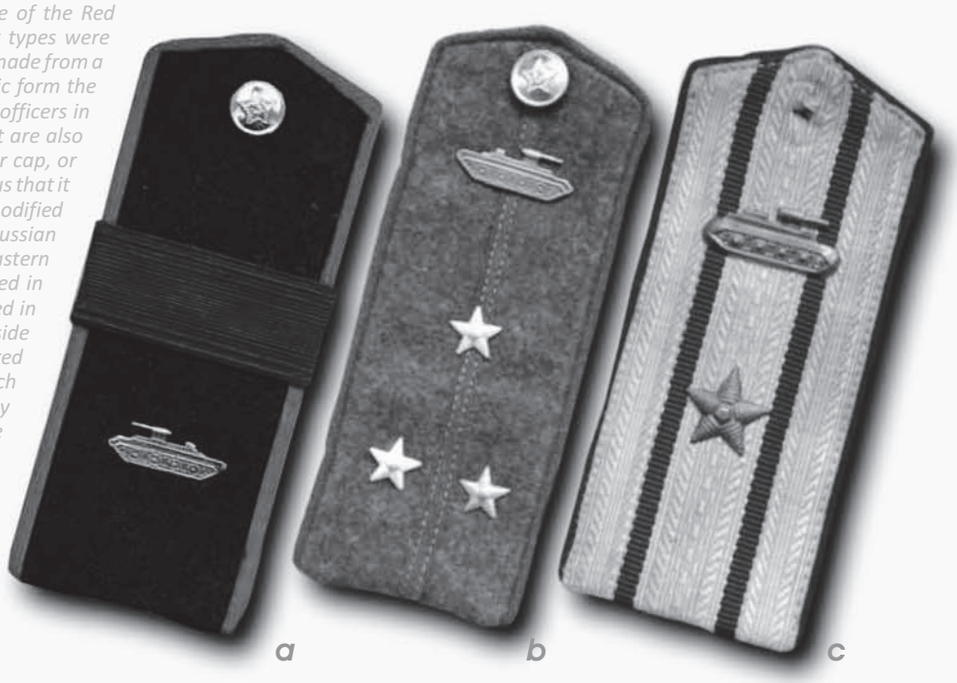
Photographed in Berlin in May 1945, this late production 76mm Emcha is almost completely intact, although the lower portion is badly burnt. In the original print of this photograph it is possible to discern the markings of 1st Mechanised Corps on the turret side. (J. Howard Parker)

A tank graveyard in Berlin, probably Charlottenburg, photographed in May 1945. Among the Panthers, Tigers and T-34 tanks are two 76mm Emchas, identified by the distinctive shape of the T23 turret. Anything useable has been removed including the suspension, tracks and guns. (J. Howard Parker)

UNIFORMS OF THE EMCHISTI

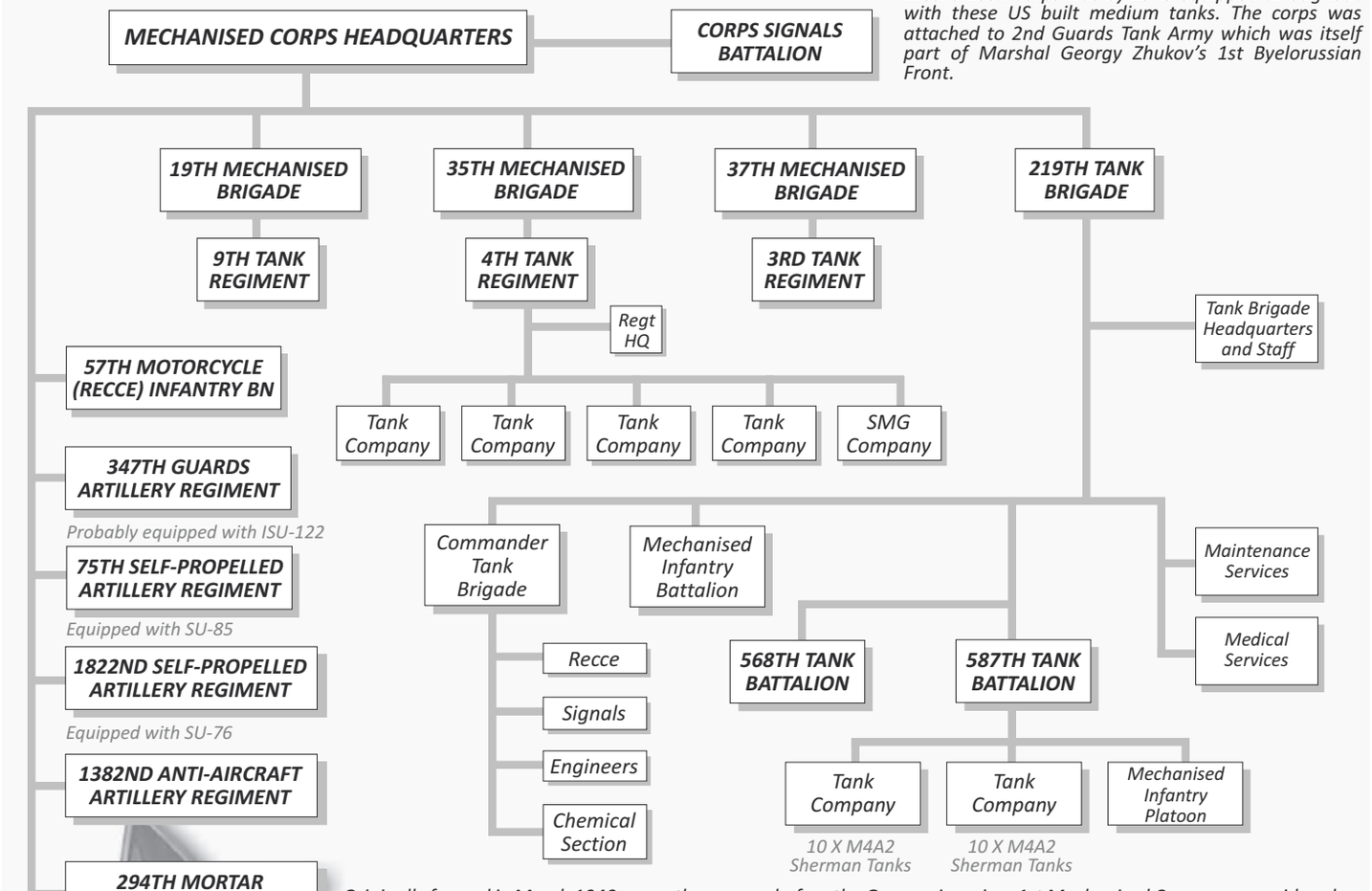
In an effort to distance itself completely from the pre-revolutionary regime, the Red Army had initially discarded all badges of rank and even rank titles - officers of whatever grade being simply referred to as Commander. Although ranks - with the exception of General - were gradually re-introduced during the 1920's, virtually every trace of the military elegance that had so characterised the Imperial Army was abandoned in favour of more politically acceptable alternatives. Rank badges consisted of collar tabs and chevrons worn on the forearm and although some items of the old Army were retained - such as the leather boots - the general appearance of both officers and men had something of the comic opera feel, typical of manufactured traditions. The staggering setbacks and huge losses of 1941-42 required that morale be sustained and as one means of achieving this, the Soviets gradually re-introduced military privileges which had long been anathema including, in January 1943, shoulder boards which had previously symbolised, more than any other single piece of uniform clothing, the Tsarist officer class. At the same time a completely new tunic, called the Kitel, was introduced for everyday wear by officers. Combat uniforms too reverted to the older style with the collarless Gymnastiorka reappearing. Specialist clothing for tank crews had been developed in the 1930's and included a ribbed tank helmet, heavy cotton overalls - which were initially black but more often grey or khaki - goggles and thick leather gauntlets. A padded jacket was issued for wear during the colder months while officers frequently wore items of leather or rubberised clothing, often with fur embellishments. Captured German items were also extensively worn, the reversible camouflage jackets being particularly prized. To alleviate the drab appearance of the khaki combat uniform, tank officers frequently wore items of their grey service dress - in particular the peaked cap with black velvet band and red piping - and all ranks commonly wore their decorations on campaign. Interestingly, pieces of the pre-1943 uniforms, especially rank insignia, continued to be worn with the new items and it is quite common to see greatcoats with the old collar tabs and newer shoulder boards. By 1945, the Red Army soldiers marching in the Victory Parade in Moscow - with the exception of the Red Star insignia and their steel helmets - were virtually indistinguishable from their Tsarist predecessors. Far left: The crew of a 76mm Emcha enjoys a quite moment. All wear the padded Telogreika jacket and the tank helmet. The man on the right also wears the goggles issued to motorised troops. Also shown is the early style of officer's belt buckle. This device was replaced in 1943 by a plain rectangular buckle.

Above, left to right: The most distinctive feature of the Red Army tankers was the tank helmet. The earliest types were manufactured in leather while later models were made from a less expensive heavy cotton or canvas. In its basic form the tank helmet is still in service today. These Soviet officers in the streets of Berlin wear two uniform items that are also commonly associated with the Red Army - the fur cap, or Ushanka, and the woolen greatcoat - so voluminous that it could double as a blanket. Officers commonly modified theirs with fur trim as can be seen here. Many Russian soldiers were from the Central Asian or Far Eastern Soviet republics such as this Private photographed in Berlin. He wears the side cap or Pilotka introduced in 1935 and the Rubaha - a shirt which was worn outside the breeches, issued to all Red Army soldiers. The red star cap badge has been painted a dull shade which was common. At left: Shoulder boards - previously thought inappropriate for an army of the proletariat - were re-introduced in January 1943. All have red piping. a) Senior Sergeant. Dark green background with crimson band, brass button and badge. This is a Parade Uniform item. b) Senior Lieutenant. Khaki background with brass button and badge with silver stars c) Major. Silver-white background with gold star and badge, red stripes. The rank of General - with its Tsarist connotations - was only re-introduced in May 1940.



1ST MECHANISED CORPS, BERLIN, APRIL 1945

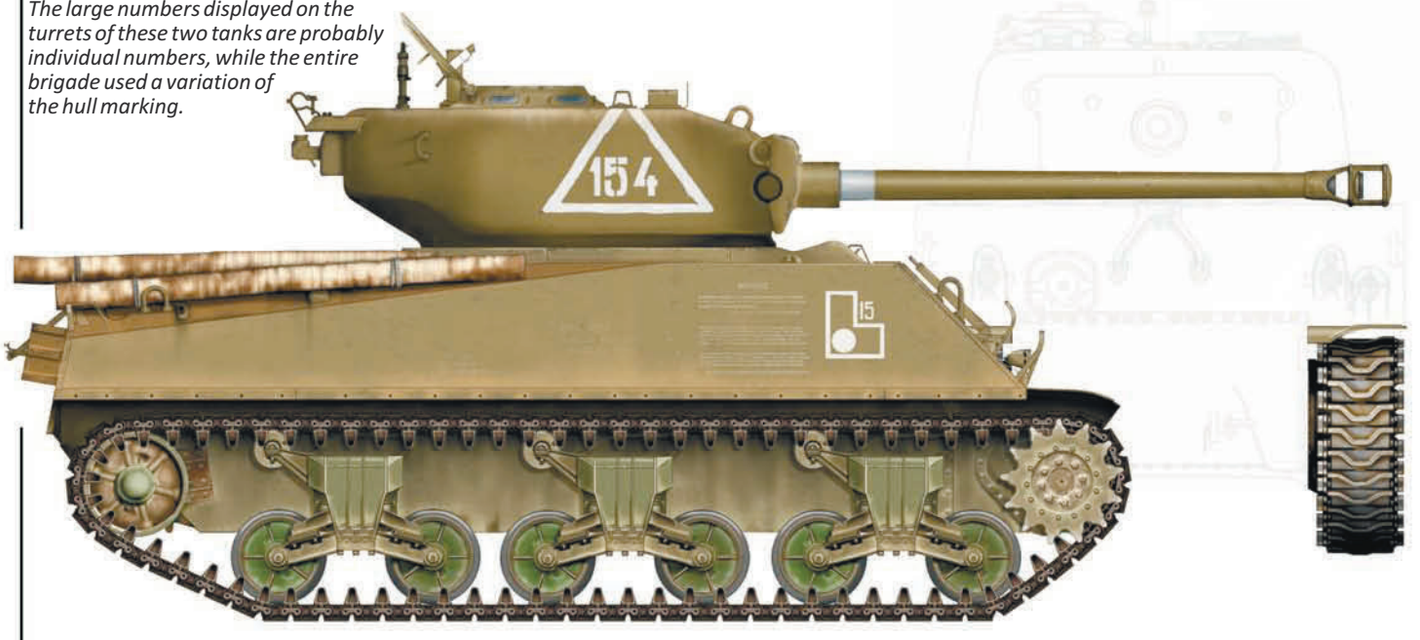
The Emcha served with many Soviet units during the war and presented here as representative, the 1st Mechanised Corps was by 1945 equipped throughout with these US built medium tanks. The corps was attached to 2nd Guards Tank Army which was itself part of Marshal Georgy Zhukov's 1st Byelorussian Front.



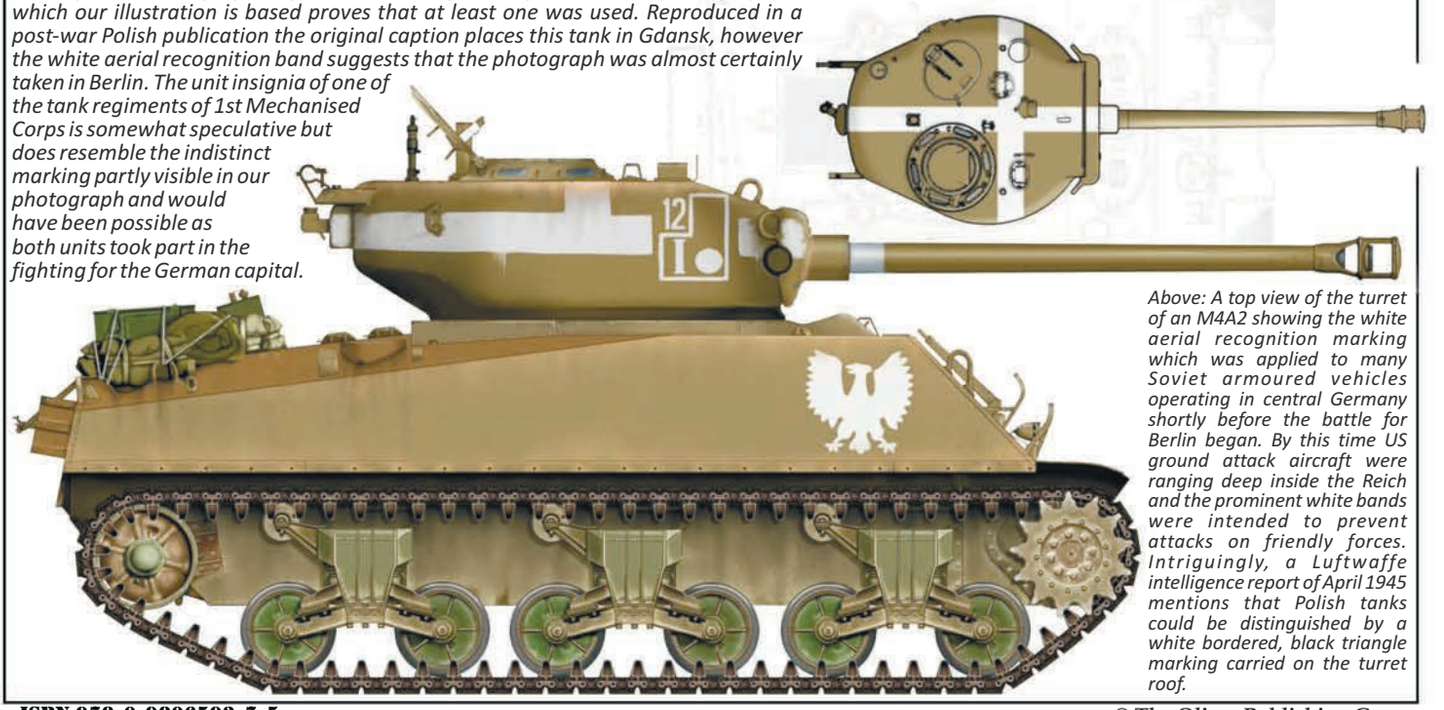
Originally formed in March 1940, more than a year before the German invasion, 1st Mechanised Corps was considered an elite formation at almost every stage of its history. In 1945 the corps was commanded by Lieutenant-General Semyon Moiseevich Krivoshein, an early pioneer of armoured warfare who had led a corps through the darkest days of Barbarossa and the Kursk battles in 1943 were he had been severely wounded. Prior to the assault on Berlin, this formation's tank companies were completely re-equipped with new M4A2 Sherman tanks, handing over their T-34/85 vehicles to other units of 2nd Guards Tank Army. Readers should note that the figure of ten tanks for each tank company is the authorised strength and would of course have varied. The tank brigade attached to each Soviet mechanised corps usually contained three tank battalions however during the fighting in Berlin only the two shown here were present. During the period of heaviest fighting, between 16 to 21 April, the corps lost 20 of their Shermans - the equivalent of two complete companies - while a further 59 were severely damaged. The supposition that 347th Guards Artillery Regiment were equipped with ISU-122 self-propelled guns is based on the official return for 1st Mechanised Corps which states that at least one of these vehicles was lost in the fighting.

An M4A2 (76) W tank from one of the 219th Tank Brigade's companies photographed in the streets of Berlin. This tank is also shown and discussed in the illustrations on the back cover. (J. Howard Parker)

Above and below: M4A2 (76) W. 1st Mechanised Corps, 219th Tank Brigade. Berlin, April 1945. *The large numbers displayed on the turrets of these two tanks are probably individual numbers, while the entire brigade used a variation of the hull marking.*



Below: M4A2 (76) W. 1st Polish Tank Corps. Berlin, April 1945. *Although the Poles made quite a show of rejecting the Sherman in favour of the T-34, the photograph on which our illustration is based proves that at least one was used. Reproduced in a post-war Polish publication the original caption places this tank in Gdansk, however the white aerial recognition band suggests that the photograph was almost certainly taken in Berlin. The unit insignia of one of the tank regiments of 1st Mechanised Corps is somewhat speculative but does resemble the indistinct marking partly visible in our photograph and would have been possible as both units took part in the fighting for the German capital.*



Above: A top view of the turret of an M4A2 showing the white aerial recognition marking which was applied to many Soviet armoured vehicles operating in central Germany shortly before the battle for Berlin began. By this time US ground attack aircraft were ranging deep inside the Reich and the prominent white bands were intended to prevent attacks on friendly forces. Intriguingly, a Luftwaffe intelligence report of April 1945 mentions that Polish tanks could be distinguished by a white bordered, black triangle marking carried on the turret roof.

ISBN 978-0-9806593-7-5

© The Oliver Publishing Group